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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/796,503

Applicant(s)

AMIN ET AL.

Examiner

Qing Chen

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-29 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 28 January 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-850)
Paper No(s)/Mail Date 20080128, 20080227, 20080512
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. This Office action is in response to the RCE filed on February 27, 2008.
2. **Claims 1-29** are pending.
3. **Claims 1-10, 12, 13, 20, 23-27, and 29** have been amended.
4. The objection to the drawings is maintained in view of Applicant's arguments and further explained below.
5. The objections to Claims 4, 5, 10-19, and 23-27 are withdrawn in view of Applicant's amendments to the claims.
6. The nonstatutory obviousness-type double patenting rejections of Claims 10, 11, 14-16, and 19 are held in abeyance until allowance of one of the co-pending applications.
7. The 35 U.S.C. § 112, second paragraph, rejection of Claim 9 is withdrawn in view of Applicant's amendments to the claim.

Response to Amendment

Drawings

8. The drawings are objected to because:
 - Reference number 226 in Figure 2 should be changed to 228 (*see Paragraph [0032]*);
 - and
 - Reference number 228 in Figure 2 should be changed to 226 (*see Paragraph [0031]*).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.

Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the Examiner, the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

9. **Claims 1-19** are objected to because of the following informalities:
- **Claim 1** recites the limitation “the media pipeline.” Applicant is advised to change this limitation to read “the partial media pipeline topology” for the purpose of providing it with proper explicit antecedent basis.
 - **Claims 2-9** depend on Claim 1 and, therefore, suffer the same deficiency as Claim 1.
 - **Claim 4** recites the limitation “the partial media topology.” Applicant is advised to change this limitation to read “the partial media pipeline topology” for the purpose of providing it with proper explicit antecedent basis.
 - **Claim 5** depends on Claim 4 and, therefore, suffers the same deficiency as Claim 4.

- **Claim 9** recites the limitation “the pipeline topology.” Applicant is advised to change this limitation to read “the partial media pipeline topology” for the purpose of providing it with proper explicit antecedent basis.
- **Claims 10, 11, 13, and 14** recite the limitation “a/the partial topology.” Applicant is advised to change this limitation to read “a/the partial media topology” for the purpose of keeping the claim language consistent throughout the claims.
- **Claims 12 and 15-19** depend on Claim 10 and, therefore, suffer the same deficiency as Claim 10.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. **Claims 1-9 and 20-28** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-9 recite the limitation “the method.” There is insufficient antecedent basis for this limitation in the claim. In the interest of compact prosecution, the Examiner subsequently interprets this limitation as reading “a method” for the purpose of further examination.

Claim 1 recites the limitations “the pipeline” and “the media application session.” There are insufficient antecedent bases for these limitations in the claim. In the interest of compact prosecution, the Examiner subsequently interprets these limitations as reading “the cached media pipeline topology” and “a media application session,” respectively, for the purpose of further examination.

Claims 2-9 depend on Claim 1 and, therefore, suffer the same deficiency as Claim 1.

Claim 20 recites the limitation “[o]ne or more computer-readable storage media comprising computer executable instructions.” The claim is rendered indefinite because computer executable instructions can only be stored or recorded on a computer-readable storage medium. In the interest of compact prosecution, the Examiner subsequently interprets this limitation as reading “[o]ne or more computer-readable storage media storing computer executable instructions” for the purpose of further examination.

Claims 21-28 depend on Claim 20 and, therefore, suffer the same deficiency as Claim 20.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. **Claims 1-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,725,279 (hereinafter “**Richter**”) in view of US 5,878,431 (hereinafter “**Potterveld**”).

As per **Claim 1**, Richter discloses:

- receiving a partial media pipeline topology that defines how data flows through a plurality of nodes in the partial media pipeline topology including at least a first media source node and at least a first media sink node (*see Column 3: 5-18, “In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task.”; Column 4: 28-31, “This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.”*);
- retrieving a media pipeline topology when the partial media pipeline topology is not sufficient to permit presentation to further define how data flows through a plurality of nodes in the media pipeline topology including at least a second media source node, at least a second media sink node, and at least one transform node (*see Column 3: 5-18, “In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task.”; Column 4: 7-*

10, "In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task." and 28-31, "This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface."); and

- copying one or more nodes including state information from the media pipeline topology to the partial media pipeline topology during a media application session thus creating a full media pipeline topology to facilitate seamless presentation of media (see Column 4: 10-19, "The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.").

However, Richter does not disclose:

- retrieving a cached media pipeline topology.

Potterveld discloses:

- retrieving a cached media pipeline topology (see Column 5: 29-41, "A collection of objects and the topological associations between them is referred to herein as a "topology." A system which manages such topologies is referred to herein as a "topological" management system. Topological management as used herein is also referred to as relationship management. In relationship management terminology, a topology is a set of managed relationships between managed objects, and topological information is a set of relationships between managed

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objects.”; Column 6: 60-67 to Column 7: 1-7, “It will also be recognized by those of ordinary skill in the art that the information stored in the topological enterprise database may be stored locally on disk 114, or may be stored locally in main memory 110, or may be distributed over other computer systems accessible via network 118, or in any combination of storage devices. For example, permanent storage of the information may reside on local or remote disk subsystems and a local memory cache may be used to improve performance.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include retrieving a cached media pipeline topology. The modification would be obvious because one of ordinary skill in the art would be motivated to improve media presentation performance (see Potterveld – Column 6: 66 and 67 to Column 7: 1 and 2).

As per **Claim 2**, the rejection of **Claim 1** is incorporated; however, Richter does not disclose:

- wherein the partial media pipeline topology is received from a remote process as a parameter in an interface call.

Potterveld discloses:

- wherein the partial media pipeline topology is received from a remote process as a parameter in an interface call (see Column 23: 15-17, “If the parameters are valid, processing continues with element 706 to verify that the entity to be added is not already known to the topology management service API.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the partial media pipeline topology is received from a remote process as a parameter in an interface call. The modification would be obvious because one of ordinary skill in the art would be motivated to conveniently access a multimedia processing configuration.

As per **Claim 3**, the rejection of **Claim 1** is incorporated; however, Richter does not disclose:

- wherein the cached media pipeline topology is retrieved as a parameter in an interface call.

Potterveld discloses:

- wherein the cached media pipeline topology is retrieved as a parameter in an interface call (*see Column 23: 15-17, "If the parameters are valid, processing continues with element 706 to verify that the entity to be added is not already known to the topology management service API."*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the cached media pipeline topology is retrieved as a parameter in an interface call. The modification would be obvious because one of ordinary skill in the art would be motivated to conveniently access a multimedia processing configuration.

As per **Claim 4**, the rejection of **Claim 1** is incorporated; and Richter further discloses:

- determining whether there are corresponding nodes in the partial media pipeline topology and the cached media pipeline topology (*see Column 3: 25-29, "For example, to determine whether or not a multimedia flow may be created between block B1 and block B2, the application interface examines the connecting ports of output interface ISI of block 1 and those of the input interface of block B2."*).

As per **Claim 5**, the rejection of **Claim 4** is incorporated; and Richter further discloses:

- transferring the at least one transform node from the cached media pipeline topology to the partial media pipeline topology (*see Column 4: 7-15, "The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system."*).

As per **Claim 6**, the rejection of **Claim 1** is incorporated; and Richter further discloses:

- cloning a plurality of connected nodes from the cached media pipeline topology into the partial media pipeline topology (*see Column 4: 7-19, "In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task. The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks."*).

As per **Claim 7**, the rejection of **Claim 1** is incorporated; however, Richter and Potterveld do not disclose:

- maintaining a data table that correlates one or more decoders in the cached media pipeline topology with one or more source nodes in the cached media pipeline topology.

Official Notice is taken that it is old and well-known within the computing art to use a table to define a relationship between related data. A relationship table is often used in a database to correlate a many-to-many relationship between two groups of data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include maintaining a data table that correlates one or more decoders in the cached media pipeline topology with one or more source nodes in the cached media pipeline topology. The modification would be obvious because one of ordinary skill in the art would be motivated to associate a decoder with a source node in a media topology.

As per **Claim 8**, the rejection of **Claim 1** is incorporated; and Richter further discloses:

- connecting one or more nodes in the partial media pipeline topology (*see Column 3: 9-13, "Each multimedia processing block of the system comprises an output interface to connect it in send mode to one of the system communication buses and/or an input interface to connect it in receive mode to one of the system communication buses."*).

As per **Claim 9**, the rejection of **Claim 8** is incorporated; and Richter further discloses:

- wherein connecting the one or more nodes in the partial media pipeline topology between the first media source node and the first media sink node comprises generating a data path between an output of a node and an input of an intermediate node (*see Column 3: 9-13, "Each multimedia processing block of the system comprises an output interface to connect it in send mode to one of the system communication buses and/or an input interface to connect it in receive mode to one of the system communication buses."*).

As per **Claim 10**, Richter discloses:

- one or more computer-readable storage media (see FIGURE); and

- a media engine embodied on the one or more computer-readable storage media and configured to communicatively interact with an application to present a media presentation (*see Column 3: 5-8, "The system in this FIGURE also comprises two multimedia processing blocks B1 and B2 to run a multimedia task. The blocks are declared to the application interface IA when they are incorporated in the system."*);

- the media engine being configured to use:

- a media session to generate a partial media topology, the partial media topology including one or more media sources, individual ones of which serving as a source of media content, and one or more media sinks configured to sink a media stream (*see Column 3: 5-18, "In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task."*; Column 4: 28-31, "This architecture is particularly used to implement very complex

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multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.”); and

- a topology loader to resolve the partial media topology into a full media topology, wherein the topology loader is configured to copy one or more nodes including state information from a media topology to resolve the full media topology, and the topologies define a flow of data through the nodes (*see Column 4: 7-19, “In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task. The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.”*).

However, Richter does not disclose:

- a cached media topology.

Potterveld discloses:

- a cached media topology (*see Column 5: 29-41, “A collection of objects and the topological associations between them is referred to herein as a “topology.” A system which manages such topologies is referred to herein as a “topological” management system. Topological management as used herein is also referred to as relationship management. In relationship management terminology, a topology is a set of managed relationships between managed objects, and topological information is a set of relationships between managed*

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objects.”; Column 6: 60-67 to Column 7: 1-7, “It will also be recognized by those of ordinary skill in the art that the information stored in the topological enterprise database may be stored locally on disk 114, or may be stored locally in main memory 110, or may be distributed over other computer systems accessible via network 118, or in any combination of storage devices. For example, permanent storage of the information may reside on local or remote disk subsystems and a local memory cache may be used to improve performance.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include a cached media topology. The modification would be obvious because one of ordinary skill in the art would be motivated to improve media presentation performance (*see Potterveld – Column 6: 66 and 67 to Column 7: 1 and 2*).

As per **Claim 11**, the rejection of **Claim 10** is incorporated; however, Richter does not disclose:

- wherein the media session passes the partial media topology to the topology loader as a parameter in an interface call.

Potterveld discloses:

- wherein the media session passes the partial media topology to the topology loader as a parameter in an interface call (*see Column 23: 15-17, “If the parameters are valid, processing continues with element 706 to verify that the entity to be added is not already known to the topology management service API.”).*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the media session passes the partial media topology to the topology loader as a parameter in an interface call. The modification would be obvious because one of ordinary skill in the art would be motivated to conveniently access a multimedia processing configuration.

As per **Claim 12**, the rejection of **Claim 10** is incorporated; however, Richter does not disclose:

- wherein the media session passes the cached media topology to the topology loader as a parameter in an interface call.

Potterveld discloses:

- wherein the media session passes the cached media topology to the topology loader as a parameter in an interface call (*see Column 23: 15-17, "If the parameters are valid, processing continues with element 706 to verify that the entity to be added is not already known to the topology management service API."*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the media session passes the cached media topology to the topology loader as a parameter in an interface call. The modification would be obvious because one of ordinary skill in the art would be motivated to conveniently access a multimedia processing configuration.

As per **Claim 13**, the rejection of **Claim 10** is incorporated; and Richter further discloses:

- wherein the topology loader is configured to determine whether there are corresponding nodes in the partial media topology and the cached media topology (*see Column 3: 25-29, "For example, to determine whether or not a multimedia flow may be created between block B1 and block B2, the application interface examines the connecting ports of output interface IS1 of block 1 and those of the input interface of block B2."*).

As per **Claim 14**, the rejection of **Claim 10** is incorporated; and Richter further discloses:

- wherein the topology loader is configured to clone one or more intermediate nodes from the cached media topology, and to connect the one or more intermediate nodes in a communication path between a media source and a media sink in a partial media topology (*see Column 4: 7-19, "In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task. The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks."*).

As per **Claim 15**, the rejection of **Claim 14** is incorporated; and Richter further discloses:

- wherein the one or more intermediate nodes comprise a decoder for decoding an output of a source node (*see Column 4: 28-31, "This architecture is particularly used to*

implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.”).

As per **Claim 16**, the rejection of **Claim 14** is incorporated; and Richter further discloses:

- wherein the one or more intermediate nodes comprises an encoder for encoding an input of a source node (see Column 4: 28-31, “This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.”).

As per **Claim 17**, the rejection of **Claim 10** is incorporated; however, Richter and Potterveld do not disclose:

- wherein the topology loader is configured to maintain a data table that associates one or more decoder nodes with a source node from one or more previous topologies.

Official Notice is taken that it is old and well-known within the computing art to use a table to define a relationship between related data. A relationship table is often used in a database to correlate a many-to-many relationship between two groups of data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include wherein the topology loader is configured to maintain a data table that associates one or more decoder nodes with a source node from one or more previous topologies. The modification would be obvious because one of ordinary skill in the art would be motivated to associate a decoder with a source node in a media topology.

As per **Claim 18**, the rejection of **Claim 10** is incorporated; however, Richter and Potterveld do not disclose:

- wherein the topology loader maintains a data table that stores one or more encoder nodes from one or more previous topologies.

Official Notice is taken that it is old and well-known within the computing art to use a table to define a relationship between related data. A relationship table is often used in a database to correlate a many-to-many relationship between two groups of data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include wherein the topology loader maintains a data table that stores one or more encoder nodes from one or more previous topologies. The modification would be obvious because one of ordinary skill in the art would be motivated to keep track of encoders in a media topology.

As per **Claim 19**, the rejection of **Claim 10** is incorporated; and Richter further discloses:

- wherein the topology loader returns a fully resolved topology to the media session
(see Column 4: 14-19, "In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface 1A only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.").

As per **Claim 20**, Richter discloses:

- receive a partial media topology defined by the flow of data through various components that includes a plurality of nodes including at least a first media source node and at

least a first media sink node (see Column 3: 5-18, “In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task.”; Column 4: 28-31, “This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.”);

- retrieve a media topology that includes a plurality of nodes including at least a second media source node, at least a second media sink node, and at least one transform node (see Column 3: 5-18, “In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task.”; Column 4: 28-31, “This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.”); and
- copy one or more nodes including state information from the media topology to a fully resolved media topology (see Column 4: 7-19, “In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task. The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA

only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.”).

However, Richter does not disclose:

- retrieve a cached media topology.

Potterveld discloses:

- retrieve a cached media topology (*see Column 5: 29-41, “A collection of objects and the topological associations between them is referred to herein as a “topology.” A system which manages such topologies is referred to herein as a “topological” management system. Topological management as used herein is also referred to as relationship management. In relationship management terminology, a topology is a set of managed relationships between managed objects, and topological information is a set of relationships between managed objects.”; Column 6: 60-67 to Column 7: 1-7, “It will also be recognized by those of ordinary skill in the art that the information stored in the topological enterprise database may be stored locally on disk 114, or may be stored locally in main memory 110, or may be distributed over other computer systems accessible via network 118, or in any combination of storage devices. For example, permanent storage of the information may reside on local or remote disk subsystems and a local memory cache may be used to improve performance.”).*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include retrieve a cached media topology. The modification would be obvious because one of ordinary skill in the art would be motivated to improve media presentation performance (*see Potterveld – Column 6: 66 and 67 to Column 7: 1 and 2).*

As per **Claim 21**, the rejection of **Claim 20** is incorporated; however, Richter does not disclose:

- wherein the partial media topology is received from a remote process as a parameter in an interface call.

Potterveld discloses:

- wherein the partial media topology is received from a remote process as a parameter in an interface call (*see Column 23: 15-17, "If the parameters are valid, processing continues with element 706 to verify that the entity to be added is not already known to the topology management service API."*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the partial media topology is received from a remote process as a parameter in an interface call. The modification would be obvious because one of ordinary skill in the art would be motivated to conveniently access a multimedia processing configuration.

As per **Claim 22**, the rejection of **Claim 20** is incorporated; however, Richter does not disclose:

- wherein the cached media topology is retrieved as a parameter in an interface call.

Potterveld discloses:

- wherein the cached media topology is retrieved as a parameter in an interface call (*see Column 23: 15-17, "If the parameters are valid, processing continues with element 706 to verify that the entity to be added is not already known to the topology management service API."*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include wherein the cached media topology is retrieved as a parameter in an interface call. The modification would be obvious because one of ordinary skill in the art would be motivated to conveniently access a multimedia processing configuration.

As per **Claim 23**, the rejection of **Claim 20** is incorporated; and Richter further discloses:

- determine whether there are corresponding nodes in the partial media topology and the cached media topology (*see Column 3: 25-29, "For example, to determine whether or not a multimedia flow may be created between block B1 and block B2, the application interface examines the connecting ports of output interface ISI of block 1 and those of the input interface of block B2."*).

As per **Claim 24**, the rejection of **Claim 20** is incorporated; and Richter further discloses:

- transfer the at least one transform node from the cached media topology to the partial media topology (*see Column 4: 7-15, "The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system."*).

As per **Claim 25**, the rejection of **Claim 20** is incorporated; and Richter further discloses:

- clone a plurality of connected nodes from the cached media topology into the partial media topology (see Column 4: 7-19, *"In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task. The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks."*).

As per **Claim 26**, the rejection of **Claim 20** is incorporated; however, Richter and Potterveld do not disclose:

- maintain a data table that correlates one or more decoders in the cached media topology with one or more source nodes in the cached media topology.

Official Notice is taken that it is old and well-known within the computing art to use a table to define a relationship between related data. A relationship table is often used in a database to correlate a many-to-many relationship between two groups of data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include maintain a data table that correlates one or more decoders in the cached media topology with one or more source nodes in the cached media topology. The modification would be obvious because

one of ordinary skill in the art would be motivated to associate a decoder with a source node in a media topology.

As per **Claim 27**, the rejection of **Claim 20** is incorporated; and Richter further discloses:

- connect one or more nodes in the partial media topology (*see Column 3: 9-13, "Each multimedia processing block of the system comprises an output interface to connect it in send mode to one of the system communication buses and/or an input interface to connect it in receive mode to one of the system communication buses."*).

As per **Claim 28**, the rejection of **Claim 20** is incorporated; and Richter further discloses:

- generate a data path between an output of an upstream node and an input of a downstream node (*see Column 3: 9-13, "Each multimedia processing block of the system comprises an output interface to connect it in send mode to one of the system communication buses and/or an input interface to connect it in receive mode to one of the system communication buses."*).

As per **Claim 29**, Richter discloses:

- means for receiving a partial media topology that defines how data flows through a plurality of nodes including at least a first media source node and at least a first media sink node (*see Column 3: 5-18, "In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface 1A creates a subset of the multimedia processing*

blocks required to run said task.”; Column 4: 28-31, “This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.”);

- means for retrieving a media topology that defines how data flows through a plurality of nodes including at least a second media source node, at least a second media sink node, and at least one transform node (see Column 3: 5-18, “In the example shown in the single figure, block B1 comprises an output interface IS1 and block B2 comprises an input interface IE2 and an output interface IS2. For each multimedia task, application interface IA creates a subset of the multimedia processing blocks required to run said task.”; Column 4: 28-31, “This architecture is particularly used to implement very complex multimedia processing configurations using, for example, echo suppressors or encoding or decoding blocks with a very simple application interface.”); and

- means for copying one or more nodes including state information from the media topology to a fully resolved media topology (see Column 4: 7-19, “In the event of exchange being impossible, once the interfaces have been examined, the application interface modifies the composition of the subset in order to obtain the exchanges required to run the multimedia task. The modification of the subset may consist in adding an encoding/decoding block when the encoding format is incompatible. In order for the block to be incorporated in the subset, it must, clearly, be included in the system. In one version, a system could be envisaged wherein the application interface IA only orders the processing blocks of the subset to connect together. All the system intelligence would then be concentrated on the processing blocks.”).

However, Richter does not disclose:

- means for retrieving a cached media topology.

Potterveld discloses:

- means for retrieving a cached media topology (see Column 5: 29-41, "A collection of objects and the topological associations between them is referred to herein as a "topology." A system which manages such topologies is referred to herein as a "topological" management system. Topological management as used herein is also referred to as relationship management. In relationship management terminology, a topology is a set of managed relationships between managed objects, and topological information is a set of relationships between managed objects."; Column 6: 60-67 to Column 7: 1-7, "It will also be recognized by those of ordinary skill in the art that the information stored in the topological enterprise database may be stored locally on disk 114, or may be stored locally in main memory 110, or may be distributed over other computer systems accessible via network 118, or in any combination of storage devices. For example, permanent storage of the information may reside on local or remote disk subsystems and a local memory cache may be used to improve performance.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Potterveld into the teaching of Richter to include means for retrieving a cached media topology. The modification would be obvious because one of ordinary skill in the art would be motivated to improve media presentation performance (see Potterveld – Column 6: 66 and 67 to Column 7: 1 and 2).

Response to Arguments

14. Applicant's arguments with respect to Claims 1-4, 6, 10-14, 20-23, 25, and 29 have been considered, but are moot in view of the new ground(s) of rejection.

In the Remarks, Applicant argues:

a) The Office objected to the drawings due to a defect in Fig. 2 in the numbering of element 228. This objection appears on the PTOL-326 mailed 10/31/07 and on page 3 of the 10/31/07 office action. However, a corrected replacement sheet was previously sent to the Office and received on August 6, 2007. On page 2 of the 10/31/07 office action, item 4, the Office states "The objection to the drawings is withdrawn in view of Applicant's amendments to the drawings."

Applicant believes the objection has been satisfied, but Applicant submits copy of this replacement sheet herewith. Accordingly, Applicant requests withdrawal of the drawing objections.

Examiner's response:

a) Examiner disagrees. The statement "[t]he objection to the drawings is withdrawn in view of Applicant's amendments to the drawings." on page 2 of the Final Rejection (mailed on October 31, 2007) refers to the objection to the drawings made in the Non-Final Rejection (delivered on April 6, 2007) regarding reference number "226" used to designate two drawing elements in Figure 2. Applicant's submission of the replacement drawing sheet of Figure 2 has corrected the typographical error. However, the correction has inadvertently introduced another

typographical error—that is, reference number 226 in Figure 2 should be changed to 228 and vice versa. Hence, the objection to the drawings appears on the PTOL-326 form and on page 3 of the Final Rejection (both mailed on October 31, 2007).

In the Remarks, Applicant argues:

b) Richter does not appear to teach a way to handle the change in processing blocks without disrupting the media stream. More particularly, Richter fails to disclose or suggest "support[ing] and dynamically manag[ing] media pipeline topology changes during media application sessions to facilitate presentation of media during dynamic changes comprising" as presently recited in independent claim 1.

Examiner's response:

b) In response to Applicant's arguments, the recitation of "[s]upporting and dynamically managing media pipeline topology changes during media application sessions to facilitate presentation of media during dynamic changes" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

16. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/QC/
May 14, 2008

/Wei Zhen/

Art Unit: 2191

Supervisory Patent Examiner, Art Unit 2191